

## ARMY AVIATION'S ROLE IN USAFRICOM AND UNITED STATES ARMY AFRICA

BY

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# USAWC STRATEGY RESEARCH PROJECT

## ARMY AVIATION'S ROLE IN USAFRICOM AND UNITED STATES ARMY AFRICA

by

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## **ABSTRACT**

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Arguably until 9/11, Africa was deemed insignificant by the United States (US) in terms of strategic value. The events on 9/11, together with drought, famine, energy security, global trade, and violent extremist organizations, have changed the US strategic view of Africa. United States Africa Command (USAFRICOM) and the United States Army Africa (USARAF) missions and organization are designed to incorporate civil and military operations taking place on the African continent.

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## ARMY AVIATION'S ROLE IN USAFRICOM AND UNITED STATES ARMY AFRICA

This paper examines the Army Aviation force structure necessary for supporting USAFRICOM and USARAF. The examination includes (1) a brief review of the USAFRICOM and USARAF missions and operational environments, (2) Provides an analysis of the structures and aviation resources necessary to meet the USAFRICOM strategy, and (3) offers recommendations on force structure and aviation platforms to successfully support their missions and strategy.

Throughout history the African continent has been previously perceived by the US as lacking strategic value. However, the events on 9/11, together with globalization in the form of armed conflict, drought, famine, energy security, pandemics, trade, and violent extremism as well as the increasing US need for expanding its resources of oil has changed the US strategic view of Africa.

On 1 October, 2007, the US created another Geographic Combatant Command, US Africa Command (USAFRICOM), headquartered in Stuttgart, Germany. The purpose of USAFRICOM supports U.S. foreign policy and national security objectives and, creates, sustains, and supports opportunities to assist our African partners in their efforts to build enduring security capacity to prevent or mitigate the catastrophic effects and costs associated with instability, conflict, transnational threats, and humanitarian disasters.<sup>1</sup> President Barack Obama quickly reinforced the role of USAFRICOM when addressing Africans in the first months of his administration, "Let me be clear. Our Africa Command is focused not on establishing a foothold on the continent, but on confronting common challenges to advance the security of America, Africa, and the world . . . I can promise you this: America will be with you every step of the way."<sup>2</sup>

As General William E. Ward, Commander, USAFRICOM states “We do not do this alone. We do this in concert with a wide range of U.S. government, African, and international partners. This is because the efforts to bring about self-sustained security are far more than just defense - they are combined with the efforts promoting diplomacy and development. We work very closely with the U.S. embassies and chiefs of mission to ensure that our activities are consistent with U.S. foreign policy, and contribute to unity of effort among the interagency.”<sup>3</sup>

By means of organizing the command around both military and interagency organizations the US hopes to simplify the use of its diplomatic, information, military and economic instruments of power in dealing with the problems evident within Africa.

In conjunction with the establishment of USAFRICOM, the Southern European Task Force (SETAF), headquartered in Vicenza, Italy was established as the Army Component of USAFRICOM, USARAF. USARAF's mission is:

U.S. Army Africa, as the Army Service Component Command for U.S. Africa Command, enables full spectrum operations while conducting sustained security engagement with African land forces to promote security, stability, and peace. As directed, deploys a contingency headquarters in support of crisis response.<sup>4</sup>

Dialogue is limited about which type of Army aviation units are best structured to support interagency organizations within USAFRICOM and USARAF and their strategic, operational and tactical goals. The size of the African continent and the specific mission set of USAFRICOM and USARAF, which is mainly humanitarian assistance (HA) and stability operations (SO), demands a specifically tailored aviation force to support them. Our current Combat Aviation Brigades (CAB) and their subordinate battalion force structures require change in order to meet these unique mission demands.

The Department of the Army needs to support USAFRICOM and USARAF in identifying aircraft, and the force structure to provide the much needed aviation assets

to support USAFRICOM and USARAF. The continued success of cargo and utility helicopters in Operations Enduring and Iraqi Freedom (OEF / OIF) make it imperative that these aircraft comprise the cornerstone of the aviation force that will support USAFRICOM and USARAF.

### Background

Prior to discussing USAFRICOM and USARAF and the function aviation should perform in support of the command, one must appreciate the environment and matters associated with the continent of Africa. Most importantly the economy, culture, geography, history, military, people, medical concerns, natural resources, and their interconnected issues make it tough to holistically portray the operational environment that makes up the USAFRICOM Theater. There are many distinct similarities found throughout numerous countries which shape a preponderance of the continent and where it is today. Through a principal knowledge of the issues and concerns, one can appreciate the difficulties USAFRICOM and USARAF leaders may encounter and offer ideas on how to resolve them especially with regards to utilizing aviation assets.<sup>5</sup>

Africa is an extremely large continent of 11.7 million square miles, or about three and a half times the size of the United States. It is 4,365 miles from Dakar, Senegal on the west coast to Mogadishu, Somalia on the east coast roughly equivalent to the distance between Chicago and Honolulu. From Tunis, Tunisia in the north to Cape Town, South Africa in the south, it is 4,885 miles, which is about equal to the distance from New York to Moscow.<sup>6</sup>

Africa's 11.7 million square miles are divided into 53 independent countries with an estimated population nearing one billion.<sup>7</sup> The terrain within the continent varies greatly, from tropical rain forests in western and central Africa, to the world's largest



desert, the Sahara, stretching across northern Africa, to immense grasslands in the eastern and southern portions of the continent.<sup>8</sup>

Africa has experienced large migration flows in recent decades, often in response to economic problems, civil unrest, or natural disasters. Africa generates 49 percent of the world's internally displaced persons (IDPs).<sup>9</sup> This shift in nomadic culture has left large areas of the continent uninhabited with little to no governance, creating a primary breeding ground for criminal and violent extremist organizations to take hold. In Doble, Somalia, a severe drought produced what the United Nations (UN) has called Africa's worst humanitarian disaster, with over 1.8 million people in need of food and healthcare assistance. Further complicating the issue is the presence of Violent Extremist Organizations among their villages. In January of 2007 the US struck one such camp in an effort to try to flush out the three Al-Qaeda commanders responsible for the 1998 bombings of U.S. embassies in Kenya and Tanzania. The poor, remote villages of Somalia provide only one example of the many areas within Africa where violent extremist organizations, such as Al- Qaeda, are able to gain a foothold and hide from American and coalition forces fighting against global extremism.<sup>10</sup>

By 2006 agriculture contributed 15% of GDP, while industry and services contributed 32% and 50%, respectively. African goals of rapid industrialization were not achieved. Agriculture, which at one time was the mainstay of the African economy, has suffered because of drought and primitive equipment and farming methods. The economy has been hindered by a lack of capital to build factories, limited skilled workers, and competition from other continents.<sup>11</sup> Because of these factors, and others, a majority of the African nations depend on world- wide foreign aid in order to survive.

In 2008, “the United States alone spent \$9 billion to promote public health, development, trade, and good governance.”<sup>12</sup>

The link between the military and the governments of various African nations has been ambiguous. Numerous African nations are run by military dictators who gained their position through military coups. From 1960 through mid-1994 there were seventy-one successful military coups and more than double that number of unsuccessful coup attempts in sub-Saharan Africa alone, coups and military governments were encouraged in large part by the arrival of weapons into the continent during the Cold War, where the East and West were battling for the support of African nations, which greatly increased the scale and incidence of military conflicts in Africa.<sup>13</sup>

Fortunately, since 1994, there has been a vast decrease in the number of military coups with several governments adopting a new civilian orientation, but the lingering effects of the Cold War continue. Weapons proliferation remains a challenge as well as significant numbers of poorly trained or corrupt militaries in dire need of professional training.<sup>14</sup>

The United States spends approximately \$9 billion a year in Africa, funding programs in such areas as health, development, trade promotion, and good governance,” Theresa Whelan, deputy assistant secretary of defense for African affairs, told members of the House Foreign Affairs subcommittee on Africa and global health here yesterday. “In contrast, security-related programs receive only about \$250 million from a multibillion dollar worldwide security budget.”<sup>15</sup>

Africa is the second largest, second most populous, and one of the most diverse continents on Earth. The billionth African will be born in 2010, and by 2050, there may be two Africans for every European. More than 22 large ethnic groups and thousands of tribes or clans speak over 2,000 languages, and Africans ascribe to an array of traditional and tribal religions. Violent competition for natural resources, low levels of

economic development and inconsistent governance have unfortunately made Africa a world leader in humanitarian crises, failed states, and deadly conflict. The conflicts in Sudan and the Democratic Republic of Congo, for example, are currently the worlds two deadliest, disrupting stability and impeding development in neighboring countries.<sup>16</sup>

Africans have a 53 year average life expectancy, attributed to malnutrition, poor sanitation, and widespread disease, to include AIDS, malaria, tuberculosis, and yellow fever.<sup>17</sup> Almost 5 million African children die every year from preventable and treatable diseases.<sup>18</sup>

Despite ongoing struggles, Africa remains a rich, vibrant, and diverse place with an ever-increasing strategic significance in today's global security environment.

Theresa Whalen, the Deputy Assistant Secretary of Defense for Africa, wrote an article for the *Institute for Security Studies* August 17, 2007, summarizing the strategic importance of Africa into four categories: geographically, demographically, economically, and politically.<sup>19</sup>

Economically Africa is important because by 2005, economic growth was averaging 5% and there were tens of thousands of US jobs tied to the African market; Africa possesses an estimated 8% of the world's petroleum; and it is a major source of critical minerals, precious metals, and food commodities.<sup>20</sup>

Geographically Africa is significant because it is the second largest continent in the world encompassing 22% of the world's land area; demographically Africa's population accounts for 14% of the world's population.<sup>21</sup> Politically, Africa does not suffer a democracy deficit. More than two-thirds of sub-Saharan African countries have had democratic elections since 2000. Power has changed hands democratically in a number of nations, from Senegal to Tanzania, and from Ghana to Zambia. So, elections have been a success. Over the next two to three years, the goal is to move beyond elections

as the measure of freedom, and toward supporting African efforts to fortify government accountability. Good governance is an essential prerequisite for any other social changes.<sup>22</sup> Political importance is relevant to the fact that of the ten non-permanent members of the UN Security Council, three of them are from Africa.<sup>23</sup>

The 2008 National Defense Strategy further argues that “the inability of many states to police themselves effectively or to work with their neighbors to ensure regional security represents a challenge to the international system” and that “if left unchecked, such instability can spread and threaten regions of interest to the United States, our allies, and friends.” Although U.S. forces have traditionally focused on “fighting and winning wars,” defense strategy is now evolving to look at conflict prevention, or “Phase Zero,” addressing threats at their inception through increased emphasis on theater security cooperation (TSC) and capacity building of allies.<sup>24</sup>

In his Presidential Cover Letter for the 2006 National Security Strategy, President Bush states that the US needs to “deal with challenges now rather than leaving them for future generations” and to “fight our enemies abroad instead of waiting for them to arrive in our country.”<sup>25</sup> President Obama directed to the Commander USAFRICOM, four priorities for Africa: 1) Strong and sustainable democratic governments, 2) Supporting development that provides opportunity, 3) Strengthening public health, 4) Peace and security necessary for progress.<sup>26</sup> The directives presented by Presidents Bush and Obama, encapsulate the strategic importance of the African continent to the US, requiring an highly capable team to execute the guidance in order to protect both US and African interests.

#### USAFRICOM and US Army Africa

USAFRICOM's commander, General William E. Ward, views the Department of Defense's (DOD) role in Africa as part of a “three-pronged” US government approach, with DOD, through USAFRICOM and USARAF, taking the lead on security issues, but

playing a supporting role to the Department of State, which conducts diplomacy, and the United States Agency for International Development (USAID), which implements development programs.<sup>27</sup> To fully understand the unified command concept, how the Department of Defense (DoD) conducts operations around the world, and how new Geographic Combatant Commands (GCC) such as USAFRICOM emerge, it is imperative to understand the Unified Command Plan (UCP).<sup>28</sup>

The Unified Command Plan is a classified document approved by the President of the United States providing basic guidance for Geographic Combatant Commanders and establishes their missions, responsibilities, and force structure; and delineates the general geographical area of responsibility for geographic combatant commanders.<sup>29</sup> The Unified Command Plan is reviewed at least every two years, by the Chairman of the Joint Chiefs of Staff, as required by the Goldwater-Nichols DOD Reorganization Act of 1986 (P.L. 99-433), and any changes the Chairman makes must be reviewed by the Secretary of Defense.<sup>30</sup>

The 1983 Unified Command Plan divided the African continent into three Geographic Combatant Commands to include European Command (EUCOM), Pacific Command (PACOM) and Central Command (CENTCOM). European Command, based in Germany, was given responsibility for a majority of the continent except for Egypt, Sudan, Djibouti, Somalia, Kenya and Ethiopia. These countries were the responsibility of Florida based Central Command, because they were deemed more closely tied with the Middle East. Finally, Hawaii based Pacific Command was given responsibility for the islands of Comoros, Madagascar and Mauritius. This division made it extremely difficult for the three geographic commanders and other US governmental agencies to

coordinate efforts within the African continent. Because of this, former Secretary of Defense Donald Rumsfeld asked his military and civilian staff to re-examine the merits and feasibility of establishing a standalone Unified Command focused exclusively on Africa. The establishment of USAFRICOM in 2007 attempted to address this problem.<sup>31</sup> The institution of USAFRICOM provides a single Geographic Combatant Command to focus priorities only on Africa instead of three Geographic Combatant Commands dealing with Africa as their lower priority.

Since 9/11, Africa is now significant to global security and in particular US national security. This is due to the poor and underdeveloped countries located throughout Africa that provide safe havens for the violent extremist organizations. Violent extremist organizations do not have large conventional forces rather they operate in small terrorist groups within safe havens, among the poorest, least developed and least secure countries in the world. Their goal is to inflict catastrophic devastation on the US or its allies. The US determined it had to look beyond providing only humanitarian assistance, but also to provide stability and security to the African continent.<sup>32</sup>

USAFRICOM is unlike any other Combatant Command organization. The Combatant Commander is a four-star flag officer with two deputy commanders, one of whom will be a civilian, the Deputy to the Commander for Civil-Military Affairs and the other a three-star flag officer, the Deputy to the Commander for Military Affairs. This command organization is essential to the success of the USAFRICOM mission. Other senior-level civilian representatives from numerous U.S. agencies will be on the USAFRICOM staff to collaborate with military personnel in order to help African nations

tackle the security challenges related to humanitarian assistance, disaster relief, disease, poverty, deforestation, building partnership capacities, civic action, etc.<sup>33</sup> By having a more integrated approach in the command, the DoD and State Department hope to better incorporate and empower other parts of the US government to help in Africa while not interfering with the leadership role in the area of diplomacy, which will be handled by the respective country's ambassadors.<sup>34</sup>

It is necessary to understand USARAF's mission in order to build the aviation assets needed to support it.

U.S. Army Africa, as the Army Service Component Command for U.S. Africa Command, enables full spectrum operations while conducting sustained security engagement with African land forces to promote security, stability, and peace. As directed, deploys a contingency headquarters in support of crisis response.<sup>35</sup>

Desired Outcome: African land forces with the capacity to be self-sufficient, secure their populations, control their borders and contribute to regional peace.<sup>36</sup> USARAF is dedicated to achieving a positive change in Africa. This will be accomplished within a few focus areas. The focus areas are:

GROW – Lay the foundation for our future success as we prepare to assume full responsibility for U.S. Army operations in Africa. ACT – Direct, integrate, and employ military capabilities to prevent or mitigate the effects of conflict or respond to crises in Africa. ENGAGE – Help transform partner nation security forces into contributors to peace with the capabilities and capacity required to accomplish the mission in support of legitimate authority. PARTNER – Become a trusted and reliable partner for African militaries and security institutions, our allies, our U.S. Africa Command team-mates, and other U.S. government agencies and international organizations working in Africa.<sup>37</sup>

In order to strengthen the partnership among the African militaries and other institutions USARAF will use the following techniques and methods to do so. First, persistent engagement: education, training, exercises, collaboration, networks, such as the

October 2009, Natural Fire 10 exercise: a joint multinational exercise, led by USARAF, this was the largest joint and multinational exercise in USAFRICOM, involving approximately 550 U.S. personnel and 650 troops from Burundi, Kenya, Rwanda, Tanzania, and Uganda. The emphasis on the exercise was improving interoperability and building partner capacity through U.S. Army Medical Command research activities in the Democratic Republic of Congo, Kenya, Nigeria, Tanzania, and Uganda; and humanitarian civic assistance activities throughout the continent coordinated by USAID embassy representatives and executed by the U.S. Army Corps of Engineers.<sup>38</sup>

Second, security force assistance: advising, partnering, augmenting, is highlighted by Africa Contingency Operations Training and Assistance (ACOTA), with 22 participating countries, the ACOTA program is managed and funded by DOS and implemented by DOD, and is designed to improve African partner nations' ability to respond quickly to crises by providing selected militaries with the training and equipment required to execute humanitarian or peace support operations.<sup>39</sup> U.S. Army officers are teaching leadership and decision-making courses at the Ethiopian Staff College.<sup>40</sup> Third, support for defense sector reform: exchanges, assessments, recommendations, USARAF has numerous ongoing military familiarization programs and recently a Liberian military defense delegation went to Fort Benning looking at ways to build respect in the ranks of the newly reformed Armed Forces of Liberia by modeling its professional relationship between officers and NCOs after the U.S. Army. Lastly, participation in crisis response: with national and international partners, which again is highlighted by the successful Natural Fire 10 exercise, focusing on regional security and humanitarian and civic assistance using a disaster relief scenario.<sup>41</sup>



Because USARAF focuses on sustained security engagement to build partner capacity, it executes all tasks by, with, and through other government agencies and international partners. USARAF recognizes that working with military, civilian, international, and African partners to build the capacity of African security institutions is not business as usual.<sup>42</sup> Rather than depending primarily on the military instrument of power, USARAF will use the “smart power” approach. Secretary of State Hillary Clinton stated that *smart power* uses “the full range of tools at our disposal.”<sup>43</sup> She described diplomacy, development, and defense as the “three pillars of American foreign policy.”<sup>44</sup>

Based on President Obama’s 11 July, 2009 speech to the Ghanaian Parliament in which he stated,

America has a responsibility to work with you as a partner to advance this vision, not just with words, but with support that strengthens African capacity. And that’s why we stand ready to partner through diplomacy and technical assistance and logistical support, and we will stand behind efforts to hold war criminals accountable. And let me be clear: Our Africa Command is focused not on establishing a foothold in the continent, but on confronting these common challenges to advance the security of America, Africa, and the world.<sup>45</sup>

It is clear there is an emphasis at the highest level of government to support the stability and growth of Africa. Now that there is a clear understanding of the mission of USARAF and USAFRICOM, the Army can look at the Army aviation assets needed to support USARAF and USAFRICOM.

#### The Future of Army Aviation Vertical Lift Aircraft

Army aviation is in the midst of a top-down review of aircraft assets through several studies, assessments and reviews. The Future Vertical Lift Capabilities-Based Assessment, a joint effort, looks at DoD's needs for vertical lift after 2020, and then crafts an acquisition strategy to obtain it.<sup>46</sup> The Aviation Study II, a follow-up to Aviation

Study I, conducted in 2003, provides information on Army Aviation modernization focus in order to keep the current fleet effective and ready to optimize new technologies and set technology conditions to allow transition to new platforms around 2025 and beyond. While these studies overlap somewhat, they are not perfectly synchronized, according to Brigadier General Walter L. Davis, former director of Army Aviation. “The Future Vertical Lift Capabilities-Based Assessment will help inform us on future gaps,” Davis adds.<sup>47</sup> And according to Major General James O. Barclay III, Commander, United States Army Aviation Center and Fort Rucker, Alabama, Aviation Study II will not focus on specific platforms, but rather on concepts that need to be addressed.<sup>48</sup> The Army is also working with the U.S. Air Force on a Joint Future Theater Lift (JFTL) Initial Capabilities Document for an aircraft that can provide heavy lift for a 20 ton plus payload at a 200 plus mile range, can operate over tactical and operational distances to and from land or sea bases and has the ability to self deploy.<sup>49</sup> So why wait, let’s put together an Army aviation package that will fit the mission of USARAF and USAFRICOM now.

#### Proposed US Army Aviation Support to USAFRICOM and US Army Africa

Based on the previously stated mission sets of USAFRICOM and USARAF, Army Aviation can expect to predominately perform missions in support of stability operations (SO). The activities aviation forces perform in stability operations are grouped into three main categories: peacetime contingency operations; peacekeeping and humanitarian assistance; and military support of civil authorities.<sup>50</sup> Much can be learned by the Natural Fire 10 exercise that USARAF conducted. . More than 1,200 soldiers and civilians from six countries came together for the 10-day exercise to practice humanitarian assistance and disaster relief. <sup>51</sup> US Army aviation assets that

participated in Natural Fire 10 were three CH-47s and two C-12s from the US Army Reserves' 7<sup>th</sup> Battalion 159<sup>th</sup> Aviation Regiment based in Olathe, Kansas and the 11<sup>th</sup> Theater Aviation Command, based at Ft Knox, Kentucky. They provided crucial, rapid transit from the staging area in Entebbe, Uganda out to the various field sites. They flew personnel and cargo back and forth daily, while also conducting sling load training in Kitgum. On October 15, 2009, Chinooks carried about 200 personnel from Entebbe to Kitgum, saving almost 10 hours that would have otherwise been spent on the road. On October 21, they were again called upon for a critical mission: a MEDEVAC flight for a seriously injured Ugandan soldier, who would not have survived the eight to ten hour ambulance ride.<sup>52</sup>

It is evident by the Natural Fire 10 exercise that aviation is a critical enabler and key to successful operations and movement in Africa due to the lack of road networks and vast expanses similar to Afghanistan. As Major General William B. Garrett, Commander, USARAF, stated "fact is, the exercise was absolutely contingent upon CH-47 support provided by 11th TAC. Lack of upgraded airfields in northern Uganda sidelined our USAF intra-theater airlift team."<sup>53</sup> Vertical Takeoff and Landing (VTOL) and rotary wing aircraft are the aircraft of choice in this environment due to the minimum number of upgraded airfields with operational runways necessary for fixed wing support. Since the mission set of USAFRICOM and USARAF deals with predominately humanitarian assistance and stability operations, in which great quantities of supplies and personnel are required to move great distances, the medium lift helicopter seems to be a good fit to support USAFRICOM and USARAF missions. However, currently USAFRICOM and USARAF have no US Army aviation capability organized under their

commands.<sup>54</sup> USAFRICOM and USARAF find themselves in a similar situation to the dilemma USSOUTHCOM faced in Central and South America in 1990, which led to the formation of the 1-228<sup>th</sup> Theater Aviation Battalion.

In contrast to USSOUTHCOM's aviation structure, the aviation assets in support of USAFRICOM and USARAF must be easily deployable as there are no plans for maintaining a permanent headquarters or military force on the African continent. Consideration must be for Intra-Theater Airlift: airlift conducted within a theater of operations, for the air movement of personnel and materiel within the geographic combatant commander's area of responsibility.<sup>55</sup>

There are several options to overcome the force structure deficit plaguing USAFRICOM and USARAF. I will provide three options: 1) a Stability Operations Aviation Battalion, a combination of active and reserve aviation assets, 2) utilize aircraft from states with a current National Guard State Partnership Program, and 3) a joint approach using Marine V-22 Ospreys.

The first proposal for an Army aviation unit is to establish a Stability Operations Aviation Battalion (SOAB), co-located with USARAF in the vicinity of Vicenza, Italy. This will be a unique unit tailored specifically for Stability Operations and Humanitarian Assistance missions. It will be a five company composite aviation battalion with four active duty companies and one National Guard fixed wing company. The four active companies are, a Headquarters and Headquarters Company, which will also contain the petroleum, oils, and lubricants (POL) platoon and food service section; a command and control (C2) company with six, UH-60M helicopters configured to support the C2 or VIP mission; a medium lift company with eight CH-47F helicopters; a company (minus) with

four HH-60L medical evacuation (MEDEVAC) helicopters; and a robust aviation maintenance company able to support UH-60 and CH-47 maintenance augmented with contracted maintainers able to conduct aviation unit-level (AVUM), intermediate-level (AVIM), and some Depot-level maintenance. The Reserve Component (RC) Company is an Air National Guard unit that will provide six, C-27 Joint Cargo Aircraft (JCA) when requested and in accordance with the Joint Cargo Aircraft (JCA) Concept of Operations (CONOP), which gives the Senior Army Aviation Authority, or SAAA, tactical control of C-27J Air Force assets, when they are embedded with the SAAA.<sup>56</sup> In other words the JCA's will be in direct support of the SOAB commander. This force structure will have no attack helicopter assets assigned. If there is a need for attack aircraft, USAFRICOM can request that capability through the established Request for Forces (RFF) process.

The eight CH-47F Chinooks will provide the workhorse capability for the movement of personnel and equipment. The CH-47 can carry up to 20,000 pounds of supplies either internally or externally, 33 personnel, or 24 litters with up to 2 hours and 45 minutes of flight time and can cover up to a maximum 350 nautical miles (nm) or less depending on fuel burn rate and load configuration. Internal cargo can be placed on 463L pallets for more timely and efficient loading. Airframe modifications will reduce by approximately 60% the time required for aircraft tear down and build-up after deployment on a C-5 or C-17.<sup>57</sup> These modifications will significantly enhance the Chinook's strategic deployment capability. The CH-47s versatility as a cargo, personnel movement, refuel, firefighting and extended range capable aircraft make it an outstanding choice for the African continent, especially for operations in the western

region of Africa where greater distances between airfields require an extended range aircraft.

The UH-60/L/M will be used in the VIP/ Command and Control (C2) role and the HH-60L will serve as the MEDEVAC platform. The UH-60 can carry up to 11 personnel and an external load of 9000 pounds if needed. It has a 300 nm range without additional external fuel tanks. If equipped with external tanks it has an additional two to three hours of loiter time when serving in a C2 role, or extended range when conducting in-extremis MEDEVAC operations. When configured as a C2 platform it can monitor aircraft missions and serve as an airborne radio retransmission and flight following for other aircraft. The HH-60 features 6 patient litters, a fully operational air ambulance with on-board oxygen generators, and a medical suction system.<sup>58</sup> The UH/HH-60 is capable of being transported on US Air Force C-130 aircraft making it very deployable, a capability previously identified as critical to mission success on the African continent.

The value of the C-27J Spartan for the Army is realized through lift capability, fuel range and performance. With a maximum airspeed of 325 knots the C-27J is capable of moving up to 25,350 lbs or 64 personnel across distances exceeding 1,100 nautical miles. As a Short Take-Off and Landing (STOL)-capable aircraft, the Spartan can take-off and land on remarkably short, unimproved airstrips and the large rear cargo door and floor loading system facilitate payload handling utilizing the 463L pallets. The C-27J is designed to meet current and anticipated intra-theater air mobility needs.<sup>59</sup> The C-27J will help absorb much of the stress placed on the CH-47 and UH-60 helicopter fleets, especially in Western Africa where great distances between villages and often needed level three medical facilities<sup>60</sup> are the norm. The C-27 will be a vital asset in

Africa for long range MEDEVAC missions, and nothing contributes more to USAFRICOM's objective of building partnership capacities, than saving a loved one's life or welcoming a new baby after a pregnancy complication.

The maintenance company equipment is fully deployable by US Air Force aircraft and can be sling loaded by the CH-47s when in country. The aim is to establish the maintenance company co-located with the aircraft companies so that routine maintenance can be accomplished daily. The higher level or AVIM and Depot level maintenance will be co-located at an airfield with a temporary or permanent hangar to conduct the more sophisticated maintenance.

Department of the Army (DA) will need to provide the personnel for the SOAB, minus the JCA unit. The DA Deputy Chief of Staff for Operations (G3/5/7) should direct force designers to develop a modified table of organization and equipment (MTOE) for the proposed SOAB. Once the MTOE is developed and approved, the DA Deputy Chief of Staff for Operations would direct the DA Deputy Chief of Staff for Human Resources (G1) to allocate personnel against the MTOE requirement. An initial estimate of the personnel strength of the SOAB is between that of the 1-228<sup>th</sup> Theater Aviation Battalion's personnel strength of 137 and a General Support Aviation Battalion's of 566,<sup>61</sup> in the range of 300 persons. Two potential sources for filling this personnel requirement are the DA Human Resources Command Friction Account<sup>62</sup> and the personnel tagged to fill the 13<sup>th</sup> Combat Aviation Brigade. The 2010 Quadrennial Defense Review (QDR) determined that U.S. forces, for the duration of the FY 2011–15 Future Years Defense Program (FYDP), included an Army 13<sup>th</sup> Combat Aviation Brigade.<sup>63</sup> The one significant issue is where to get the personnel to fill the unit. Regardless whether they

are taken from the 13<sup>th</sup> CAB or the HRC friction account it will definitely impact the ongoing force structure plans.

Formation of a SOAB will impact the US Army's plan to field a 13<sup>th</sup> Combat Aviation Brigade (CAB).

As for a 13th CAB, there's a lot of thoughts and good ideas running around about that one, said Rotte. It's under consideration, but of course, it's been under consideration since we came up with the idea for the 12th, said Col. Randy Rotte, aviation division chief for force development (G-8). There's no doubt that there's a high demand for the capability that rotary-wing aviation brings to the fight. So now it's a matter of what's the right investment.<sup>64</sup>

Instead of the 13<sup>th</sup> CAB, the SOAB could be an alternative that would support the USAFRICOM and USARAF theatre of operation and would come at a much less cost in personnel and equipment than a CAB. The resourcing of a 13th CAB is being discussed as part of ongoing fiscal year 2011 budget deliberations set to wrap up soon, said Rotte. "Hopefully, we'll hear about that one shortly . . . in the next month or so."<sup>65</sup> Currently there is no aircraft acquisition plan for the 13<sup>th</sup> CAB. One recommendation to obtain aircraft for the SOAB is to redistribute aircraft designated for the reserves, via a "no later than" timeline as they become available off the assembly line or from the Aviation Reset Program.<sup>66</sup>

The second option is to use aircraft from the states currently participating in the National Guard State Partnership Program (SPP) and US Army Reserve aircraft. In order for this to work units would need to be identified and be tasked for a one year "on order" mission in direct support of USARAF or AFRICOM. There are seven state partnerships with African nations. California with Nigeria, New York with South Africa, North Carolina with Botswana, Utah with Morocco, Vermont with Senegal, Wyoming with Tunisia and North Dakota with Ghana. All the SPP states have UH-60s and all but



Vermont and Utah have C-130s from the Air National Guard or are scheduled to receive the JCA. The Army Reserves have the CH-47 aircraft companies under the 11<sup>th</sup> Theater Aviation Command (TAC). The C-130s give the capability to move 92 ground troops, 64 fully equipped paratroopers, or 74 litter patients, and can also carry 45,000 pounds of cargo from major airports to more remote airfields. The advantage to this proposition is the C-130s can self deploy and carry the UH-60s onboard. Also with the “on order” mission it means those units and aircraft are dedicated to AFRICOM for the entire year. The Air National Guard has been and is receiving the C-130J, which means their operational readiness rates should continue to be above the required 75 percent, routinely achieving 75 percent to 90 percent.<sup>67</sup>

This plan requires prior training by the prospective units to work out operational and planning issues. Training would most likely occur during the unit's annual training. States will also have to agree, via a memorandum of agreement or understanding, that they will lose their aviation assets for a year, requiring reciprocal agreements with neighboring states for support. Since stability operations missions are similar to the current state missions, they should require minimal additional training, reducing mobilization time to one month or less. Incorporating mobilization and demobilization into the availability of RC units changes the operational availability timeline to eleven months or less. The result is more frequent Reserve Component mobilizations, limited overlap of supporting units, loss of continuity, and shorter dwell times contradicting the current Reserve and National Guard policy of one year deployed two years home.

Deployment time would take longer coming from the United States. The CH-47s and the supporting equipment cannot self deploy from CONUS and are dependent on

C-17 or C-5 aircraft or sea lift assets to transport them. With the current demand on the C-17 and C-5, availability of the aircraft will be prioritized by Air Mobility Command (AMC) and therefore movement timelines could be delayed due to higher priorities. The C-5 and C-17 Aerial Ports of Debarkation (APOD) must be able to handle the heavier aircraft and because of this may be a greater distance from the C-130 APOD.

Since the National Guard units have the State Partnership Programs with African nations they better understand the specific issues associated with Africa. A greater concern with this plan is ensuring all the pieces are in place to guarantee the availability of the units for the one year mission and to make sure the states have an aviation plan to support their state mission. As previously stated, in order for this to work units would need to be identified and be tasked for a one year on order mission in direct support of USAFRICOM or USARAF.

A third option for providing intra-theater lift capability is to place an US Marine Corps V-22 Osprey squadron under the operational control of 17<sup>th</sup> Air Force, US Air Forces Africa, to support USAFRICOM and USARAF, until the Joint Future Theater Lift (JFTL) aircraft becomes available. The Osprey is a multi-mission, military, tilt rotor aircraft with both a vertical takeoff and landing (VTOL) and short takeoff and landing (STOL) capability. It is designed to perform missions like a conventional helicopter with the long-range, high-speed cruise performance of a turboprop aircraft.<sup>68</sup> The Osprey is designed to carry troops or equipment where there is no major, well-equipped airfield for landing and offloading. The V-22 can carry 24 personnel in seats or 32 on the floor. It can carry 15,000 pounds externally. The V-22 has a range of 1000 miles or a radius of

370 miles.<sup>69</sup> The Osprey can self deploy and has aerial refuel capability, making it a very good choice for missions on the African continent.

The MV-22 deployments in Iraq were considered successful. As of January 2009, the 12 MV-22s deployed in Iraq and utilized by three separate squadrons had successfully completed all missions assigned to them including general support—moving people and cargo—in what was considered an established, low-threat theater of operations. These deployments confirmed that the MV-22's enhanced speed and range, enable personnel and internally carried cargo to be transported faster and farther than is possible with the legacy helicopters the MV-22 is replacing. According to MV-22 users and troop commanders, its speed and range “cut the battlefield in half,” expanding battlefield coverage with decreased asset utilization and enabling it to do two to three times as much as legacy helicopters in the same flight time. Cited advantages include more rapid delivery of medical care, more rapid completion of missions, and more rapid travel by U.S. military officials to meetings with Iraqi leaders.<sup>70</sup>

All things considered, maintenance is a key issue in aviation operations most notably in an austere environment like Africa. In a comparison between Army aviation assets and the Marine Corps aircraft the deciding factor may come down to reliability. The Army Aviation fleet is performing extremely well in Iraq and Afghanistan under exceptionally challenging and dangerous conditions. More than 3 million flight hours have been flown since hostilities began in Iraq in March 2003. The monthly operational tempo (OPTEMPO), depending on the aircraft type, is three to five times higher than normal peacetime mission requirements. Despite these demands, their mission capable rates met or exceeded the 75 percent standard established for Army aircraft.<sup>71</sup> This is

of notable significance when considering assigning Army aircraft to support USAFRICOM and USARAF in austere conditions. Army aviation has proven its reliability in the most demanding conditions.

Although the V-22 may well be the best choice for support to AFRICOM and USARAF, there are some valid considerations why it would not be a wise choice. There have been some challenges with operational readiness (OR) rates and maintenance. In Iraq, the V-22's mission capability (MC) and full-mission capability (FMC) rates fell significantly below required levels as well as rates achieved by legacy helicopters. The V-22 MC minimum requirement is 82 percent, with an objective of 87 percent, compared with actual MC rates for the three squadrons of 68, 57 and 61 percent. This experience is not unique to Iraq deployments, as low MC rates were experienced for all MV-22 squadrons, in and out of Iraq.<sup>72</sup> Aircraft suitability challenges, such as unreliable parts and supply chain weaknesses, drove availability significantly below minimum required levels. There are some issues with the Osprey's Ice Protection System, which should have minimal impact in Africa except in the mountainous areas in southern Africa in the winter. Thirteen V-22 components accounted for over half the spare parts unavailable on base in Iraq when requested. These 13 lasted, on average, less than 30 percent of their expected life, and 6 lasted less than 10 percent of their expected life. V-22 engines also fell significantly short of service life expectancy, lasting less than 400 hours versus the program estimated life of 500-600 hours.<sup>73</sup>

After careful consideration of aircraft capability and, the operational conditions in the USAFRICOM and USARAF area of operations it is my recommendation that the US Army take the lead and support USAFRICOM and USARAF with a Stability Operations

Aviation Battalion (SOAB). USAFRICOM and USARAF need organic reliable aviation assets that can accomplish the unique missions in the African theater of operations. Providing this type of unit will require Army aviation to make some difficult calls on future unit fielding affecting both active and reserve aviation units. One option the Department of the Army should consider is to fill the SOAB instead of a 13<sup>th</sup> CAB, which would greatly reduce the price tag to the Army in terms of equipment and personnel. The US military has numerous resources to meet this need and must prioritize and allocate aircraft and personnel to USAFRICOM and USARAF no later than 2011, utilizing the National Guard State Partnership Program to fill the void until an active duty unit is formed and operational. This task is a huge endeavor for the Army and Army aviation however it is vital to the security of Africa and the national security of the United States.

#### The Right Stuff

There are many possible options for aviation support to USAFRICOM and USARAF. I have laid out three viable options, 1) a Stability Operations Aviation Battalion, a combination of active and reserve aviation assets, 2) utilize the current National Guard State Partnership Program aircraft, and 3) a joint approach using Marine V-22 Ospreys, all having strengths and weaknesses. However when it is all said and done it comes down to supporting a Unified Command that has a mission to support the second largest continent on the earth. The President has publically stated that USAFRICOM will support Africa as a partner to ensure the advancement of vision, not just with words, but with support that strengthens African capacity.<sup>74</sup> USAFRICOM and USARAF must be ready to use diplomacy, provide technical, medical and logistical

support to make Africa a more stable continent which will have a positive impact on US national security.

## Endnotes

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<sup>3</sup> United States Africa Command, "2009 Posture Statement," <http://www.africom.mil>, (accessed February 2, 2010).

<sup>4</sup> U.S. Army Africa, "Mission Statement," <http://www.usaraf.army.mil/mission.html>, (accessed October 20, 2009).

<sup>5</sup> Major Steven G. Edwards, "Why SOF Is The Military Force of Choice For AFRICOM," Research Report, (Maxwell Air Force Base, Alabama April 2008) 3, [https://www.afresearch.org/skins/rims/q\\_mod.../display.aspx?...](https://www.afresearch.org/skins/rims/q_mod.../display.aspx?...) (accessed January 15, 2009).

<sup>6</sup> United States Africa Command, "Command Overview," Slide 2, <http://www.africom.mil>, (accessed October 20, 2009).

<sup>7</sup> United States Africa Command, "Command Overview," Slide 2, <http://www.africom.mil>, (accessed January 27, 2010).

<sup>8</sup> Major Steven G. Edwards, "Why SOF Is The Military Force of Choice For AFRICOM," Research Report, (Maxwell Air Force Base, Alabama April 2008) 3, [https://www.afresearch.org/skins/rims/q\\_mod.../display.aspx?...](https://www.afresearch.org/skins/rims/q_mod.../display.aspx?...) (accessed January 15, 2009).

<sup>9</sup> United States Africa Command, "2009 Posture Statement," <http://www.africom.mil>, (accessed October 20, 2009).

<sup>10</sup> Major Steven G. Edwards, "Why SOF Is The Military Force of Choice For AFRICOM," Research Report, (Maxwell Air Force Base, Alabama April 2008) 3, [https://www.afresearch.org/skins/rims/q\\_mod.../display.aspx?...](https://www.afresearch.org/skins/rims/q_mod.../display.aspx?...) (accessed January 15, 2009).

<sup>11</sup> Donald L. Sparks, "Economic Trends in Africa South of the Sahara," <http://www.europaworld.com/pub/about>, (accessed January 7, 2010).

<sup>12</sup> John J. Kruzel, Pentagon Official Describes AFRICOM's Mission, Dispels Misconceptions, Washington, Aug 3, 2007, <http://www.africom.mil/getArticle.asp?art=1477&lang=0> (accessed October 22, 2009).

<sup>13</sup> Major Steven G. Edwards, "Why SOF Is The Military Force of Choice For AFRICOM," Research Report, (Maxwell Air Force Base, Alabama April 2008) 3, [https://www.afresearch.org/skins/rims/q\\_mod.../display.aspx?...\(accessed January 15, 2009\).](https://www.afresearch.org/skins/rims/q_mod.../display.aspx?...(accessed January 15, 2009).)

<sup>14</sup> Ibid.

<sup>15</sup> John J. Kruzel, Pentagon Official Describes AFRICOM's Mission, Dispels Misconceptions, Washington, Aug 3, 2007, <http://www.africom.mil/get Article.asp?art=1477&lang=0> (accessed October 22, 2009)

<sup>16</sup> Major General William B. Garrett III, Colonel Stephen J. Mariano, and Major Adam Sanderson, U.S. Army, "Forward In Africa", linked from The United States Army Africa Home Page, at "Reading Room", [http://www.usaraf.army.mil/documents\\_pdf/READING\\_ROOM/MilitaryReview\\_20100228\\_art006.pdf](http://www.usaraf.army.mil/documents_pdf/READING_ROOM/MilitaryReview_20100228_art006.pdf) (accessed January 7, 2010).

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<sup>21</sup> Ibid.,1.

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<sup>28</sup> Theresa Whalen, "Why AFRICOM? An American Perspective," 2.

<sup>29</sup> Ibid.

<sup>30</sup> Lauren Ploch, "Africa Command: U.S. Strategic Interests and the Role of the U.S. Military in Africa," Congressional Research Service, July 28, 2009, <http://fpc.state.gov/documents/organization/128839.pdf> (accessed October 22, 2009).

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<sup>56</sup> Mark Diamond, "JCA CONOP Test Finding Success in Iraq," November 30, 2009, <http://www.amc.af.mil/news/story.asp?id=123179807>, (accessed December 5, 2009).

<sup>57</sup> US Army Fact Files: <http://www.army.mil/factfiles/equipment/aircraft/chinook.html>, (accessed December 5, 2009) The 463L pallet is aluminum surfaced, balsa wood-core pallet designed for roller type handling in and around cargo aircraft. The pallet secures cargo by restraining nets and straps, and can carry up to 10,000 pounds of cargo. The Chinook has the

capability to carry up to four Extended Range Fuel System (ERFS) tanks which hold 600 gallons of fuel each or a total of 2400 gallons, enabling the Chinook to self deploy or extend the operational radius of missions. The CH-47 can be configured into a forward arming and refueling point (FARP) with the use of the ERFS tanks. This allows one aircraft to provide fuel to other aircraft so they can extend their legs or to establish a ground FARP and have one aircraft resupply the FARP. Airframe structural modifications will reduce harmful vibrations, reducing operations and support (O&S) costs and improving crew endurance.

<sup>58</sup> <http://www.sikorsky.com/vgn-ext-templating-1000001382000a>. (accessed November 5, 2009).

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<sup>60</sup> Level III Medical Care is corps-level health service support, which includes evacuating patients from supported divisional and nondivisional units and providing resuscitative and hospital care. In addition, Echelon III includes providing area health service support within the corps' area to units without organic medical units. Echelon III care is provided by units such as mobile army surgical hospitals (MASH), combat support hospitals (CSH), evacuation hospitals (EVAC), and field hospitals (FH). Patients unable to survive movement over long distances receive surgical care in an Echelon III hospital. In these theater hospitals, patients receive care that will either allow them to be returned to duty or stabilized for evacuation out of the corps or out of the theater altogether.

[http://www.rand.org/pubs/monograph\\_reports/MR773/MR773.chap2.html](http://www.rand.org/pubs/monograph_reports/MR773/MR773.chap2.html)

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<sup>62</sup> With the Year,Month, Availability (YMAV) no longer being the key indicator to generate a PCS move, Dynamic Distribution System (DDS) will identify "donor" and "receiving" units. Donor units are identified as units who are "over" their authorization and/or a lower priority account where we can "pull" and reassign officers from. Receiving units are identified as units that are "under" their authorization and/or a higher priority account we must fill to a certain percentage. If personnel are in a donor unit, they could be considered available for assignment (PCS) if they have at least 12 months time on station (TOS) as of this next reporting period. [https://www.hrc.army.mil/site/protect/active/field grade log/ unreferenced\\_objects/quartermaster\\_ltcs\\_assignments\\_officer.htm](https://www.hrc.army.mil/site/protect/active/field%20grade%20log/unreferenced_objects/quartermaster_ltcs_assignments_officer.htm) (accessed February 12,2010).

<sup>63</sup> The 2010 Quadrennial Defense Review, February 2010, <http://www.defense.gov/QDR/>, Executive Summary XV-XVI, (accessed February 6, 2010).

<sup>64</sup> Kate Brannen, "Army Considering Formation, Funding Of 13th Combat Aviation Brigade," The InsideDefense News, December 28, 2009, [defense.iwpnewsstand.com/showdoc.asp?docid=ARMY-21-51-5](http://defense.iwpnewsstand.com/showdoc.asp?docid=ARMY-21-51-5). (accessed January, 5 2010).

<sup>65</sup> Ibid.

<sup>66</sup> Resetting involves 100 percent disassembling and reassembling aircraft and also allows maintainers to equip aircraft with the latest modifications, said Maj. Gen. James R. Myles, commander of the U.S. Army Aviation and Missile Command. There are eight sites in the world

that handle reset of the various aircraft with six in the continental U.S., and while “it would be nice to have a super site” dedicated to handle each airframe, the diversity of the existing sites is more effective. [http://www.ausa.org/news/latestnews/NewsArchiveJanuary\\_2008/Pages/reportsfromAUSAAviationSymposium.aspx](http://www.ausa.org/news/latestnews/NewsArchiveJanuary_2008/Pages/reportsfromAUSAAviationSymposium.aspx), (accessed February 6, 2010).

<sup>67</sup> Marcus Weisgerber, Oldest Aircraft Gets High Marks in Iraq, Oldest Aircraft Gets High Marks in Iraq, InsideDefense.com NewsStand, January 6, 2007, <http://www.military.com/features/0,15240,121685,00.html> (accessed December 5, 2009).

<sup>68</sup> Dave Ahearn, “Lockheed chooses United Technologies to power MMA” Navy News & Undersea Technology, <http://www.faq.s.org/abstracts/Business/Lockheed-chooses-United-Technologies-to-power-MMA-Lockheed-leads-in-DOD-navy-contracts-in-2003.html>, (accessed December 5, 2009).

<sup>69</sup> [http://www.boeing.com/rotorcraft/military/v-22/docs/V-22\\_overview.pdf](http://www.boeing.com/rotorcraft/military/v-22/docs/V-22_overview.pdf) (accessed November 5, 2009).

<sup>70</sup> U.S. Government Accountability Office, V-22 OSPREY AIRCRAFT Assessments Needed to Address Operational and Cost Concerns to Define Future Investments Report to Committee on Oversight and Government Reform, (Washington, DC: U.S. Government Accountability Office, Tuesday, June 23, 2009) <http://www.gao.gov/new.items/d09692t.pdf>, (accessed December 5, 2009).

<sup>71</sup> United States House of Representatives, Committee on Appropriations, *Army Aviation Programs*, First Session, 111th Congress March 31, 2009.

<sup>72</sup> U.S. Government Accountability Office, V-22 OSPREY AIRCRAFT Assessments Needed to Address Operational and Cost Concerns to Define Future Investments Report to Committee on Oversight and Government Reform, (Washington, DC: U.S. Government Accountability Office, Tuesday, June 23, 2009) <http://www.gao.gov/new.items/d09692t.pdf>, (accessed December 5, 2009).

<sup>73</sup> Ibid.

<sup>74</sup> Obama’s Speech in Ghana, <http://www.america.gov/st/texttrans-english/2009/July/20090711110050abretnuh0.1079783.html> (accessed October 24 2009).